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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
APPIAH, CHARLES NANA	

ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/306,084	FEDER ET AL.	
	Examiner	Art Unit	
	Charles Appiah	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3 and 8-10* is/are rejected.

7)☒ Claim(s) *2 and 4-7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 3, 8, 9 and 10 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. Claims 1, 3, 8, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Whitehead (6,157,616) in view of Persson et al. (6,028,851).**

Regarding claim 1, Whitehead discloses a method of transmitting over a wireless link, the method comprising: adjusting a transmit power of a wireless transmitter in relation to an expected number of ACKs (implied by "WAIT FOR ACKNOWLEDGMENT", step 434, Fig. 4), and one of a number of ACKs lost and a number of ACKs received for radio transmissions over the wireless link, the number of expected ACKs is N (ACK received, step 450 leads to baseline transmit power level being decreased by value delta, see col. 5, lines 45-50, and timeout or NACK leads to increasing the baseline transmit power by delta value, col. 5, lines 25-46). See Fig. 4. Whitehead further teaches computing a current value of a power level based at least in part on an observed ratio between at least two of recent packet transmission successes (reads on ACKs received) and recent packet collisions (reads on ACKs lost), see col. 9, lines 1-35), but fails to explicitly teach wherein the transmit power is adjusted in relation to an expected plurality of ACKs).

Persson discloses a system for controlling access to a cellular radio telecommunications system in which a mobile station seeking access from a base station, transmit at an initial power level, to which it expects an acknowledgment and continues to increase the power until the base station detects the signal containing the access request and indicates the access request being allowed (see col. 4, line 59 to col. 5, line 12), which indicates the system having the capability of the expected acknowledgments for all the transmission at the different power levels.

It would therefore have been obvious to one of ordinary skill in the art to use the teaching of Persson by incorporating the feature of expected ACKs to control transmission power in combination with whitehead's system in order to control interference and degradation of system performance as taught by Persson.

Regarding claim 3, Whitehead further discloses determining an initial transmit power for the wireless transmitter based on a measurement of a signal received over the wireless link (see col. 4, line 62 to col. 5, line 3).

Regarding claim 8, Whitehead discloses a method of transmitting over a wireless link, the method comprising: adjusting a transmit power of a wireless transmitter based upon a predetermined threshold, the predetermined threshold being in relation to a number of ACKS lost (negative acknowledgment – NACK)/ expected number of ACKs (step 434, Fig. 4), for radio transmissions over the wireless link (see col. 5, lines 25-50 and col. 9, lines 1-35, by computing a current value of a power level based at least in part on an observed ratio between at least two of recent packet

transmission successes (reads on ACKs received) and recent packet collisions (reads on ACKs lost).

Regarding claim 9, Whitehead discloses a method of transmitting over a wireless link, the method comprising: adjusting a transmit power of a wireless transmitter based on an implied ACK expected (implied by step 434) for transmission over the wireless link, the ACK expected based on at least one of frames and packets set (see col. 2, line 62 to col. 3, line 24). See Fig. 4. Whitehead fails to explicitly teach using a plurality of expected ACKs.

Persson discloses a system for controlling access to a cellular radio telecommunications system in which a mobile station seeking access from a base station, transmit at an initial power level, to which it expects an acknowledgment and continues to increase the power until the base station detects the signal containing the access request and indicates the access request being allowed (see col. 4, line 59 to col. 5, line 12), suggesting the system having the capability of knowing expected acknowledgments for each transmission at different power levels.

It would therefore have been obvious to one of ordinary skill in the art to use the teaching of Persson by incorporating the feature of expected ACKs to control transmission power in combination with whitehead's system in order to control interference and degradation of system performance as taught by Persson.

Regarding claim 10, Whitehead further discloses wherein the ACKs expected are based on at least one of voice and data (see col. 3, lines 14-24).

Allowable Subject Matter

3. Claims 2 and 4-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gibson et al. (6,021,311) discloses a method for transmitting messages between a primary station and plurality of secondary stations each of which is expected to generate responses to the messages.

Tiedemann, Jr. et al. (6,317,435) discloses a system for maximizing the use of available resources in a communication system

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Appiah whose telephone number is 703 305-4772. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CA

CHARLES APPIAH
PRIMARY EXAMINER